



Fish and Aquatic Conservation

[Home](#)

You Are Here: [Fisheries Home](#) » [Aquatic Invasive Species](#) » [Injurious Wildlife](#) » Invasive Species Prevention

Invasive Species Prevention: Keeping Risky Aquatic Species Out of the United States – How We are Working with Industry and State Partners

Introduction

Trade in live, nonnative organisms is a multi-billion dollar industry that supports components of the pet, food, bait, aquaculture, zoo, sportfishing, and horticulture trades. Only a small fraction of those species escape from captivity, survive, and establish populations in the environment, and then disperse and cause harm. However, those that do collectively cost society billions of dollars each year in the United States alone in lost crops, livestock, timber, fisheries, and other resources, as well as diseases and damage to property. [We should note that invasive species come from other sources besides the commerce-in-live-organism industries—these are related to transportation, such as “hitchhiking” species in ships’ ballast water and in packing materials. The U.S. Fish and Wildlife Service (Service) is working on these transportation pathways through other avenues.]

Preventing risky species from entering the United States is the most cost-effective and efficient approach for avoiding the devastating ecological and economic effects caused by many invasive species. One way to prevent wildlife species from becoming invasive is to list them as injurious species under the Lacey Act, which prohibits their importation and interstate transportation. Listing a new species under the Lacey Act has been a lengthy process, and often, by the time a species is listed as injurious, it is too late, and the species becomes established in the wild. Once a species becomes established, it is extremely unlikely that it can be eradicated, and such attempts are expensive.

The Service has been working to streamline the implementation of its regulatory process, but this process cannot be the only approach used to solve problems from harmful, nonnative species in the live-organism trade. Another approach includes working with the industries that trade in live animals. Many of these industries—including pet, bait, aquaculture, food, sportfishing, and display—understand that some of their trade species are becoming invasive problems, and they don’t want to perpetuate the problem. This makes the Service’s Fisheries and Habitat Conservation program a natural partner in the goal of preventing the spread of invasive species through the industries voluntary commitment to not trade potentially invasive species. Organisms that are part of the voluntary import and trade abstention by industry will still undergo evaluations for listing as injurious under title 18 of the Lacey Act, but the voluntary abstention will provide some protection from invasion during this administrative process.

How the Partnership Works

The Service has developed a comprehensive approach to managing invasive species risks from the live, nonnative animal trade. That approach is intended to augment regulations with non-regulatory, voluntary, risk-management approaches implemented by industry and Federal and State governments. This partnership will not preempt any regulatory actions by Federal or State governments.

The Service is providing the technical expertise and the information on what species, if they were imported into the country and then escaped into the wild, would be likely to be: non-invasive (that is, low risk species), invasive (that is, high risk species), and species for which insufficient information exists to scientifically characterize risk. Trade companies and other entities would agree to not import high-risk species not presently imported and traded. Selected species found to be high or uncertain risk may: voluntarily not be imported by the industries; be supported for trade only through voluntary mitigation or best management practices, such as trading only reproductively sterilized organisms; or be transported, traded, and stocked only in locations within United States where climate-matching projects a low risk of population establishment.

We are focusing on aquatic species that are not yet found in the United States, have shown a history of invasiveness in other countries, and could develop self-sustaining populations in U.S. climates. By using advanced scientific modeling, we developed a risk-screening model that is relatively fast. We use international databases, scientific literature, and a peer-reviewed model to match the basic climate requirements (temperature and precipitation) of a species in its native and invasive ranges with similar climates in the United States. This gives us an approximate geographic range in the United States where the climate is similar to where the species survives

- [Overview](#)
- [Invasive Species Prevention](#)
- [Categorical Exclusion](#)

elsewhere. Then the species history of invasiveness in other parts of the world is factored into the risk-screening model.

The Service, through its Headquarters Fisheries Program and Midwest Regional Office, is performing dozens of ecological risk screenings on aquatic animal species that are known to be invasive outside of their native ranges. To be transparent, the Service is providing the public with the Ecological Risk Screening Summaries (ERSS), which are reports that summarize the results of the screenings. The ERSS reports are available on this website.

These reports can provide the live-animal trade industries with technical assistance so they can decide which species that they would voluntarily refrain from importing. In addition, State natural resource and conservation agencies can use the ERSSs to aid with their management decisions for potentially invasive species and to work with industry on their own agreements for risky species with a climate match in their jurisdiction.

What This Website Provides

- We are posting the [Standard Operating Procedures](#) that explains how the ERSS reports were prepared.
- We are posting links to Ecological Risk Screening Summaries for high- and uncertain-risk species not in U.S. trade. In addition, we will post low-risk Ecological Risk Screening Summaries.
- We are providing an e-mail address for the public to submit information on the ERSS reports, such as new, substantive information or to point out inaccuracies that might change our assessment. If you have such comments, please send to:

prevent_invasives@fws.gov

We will post all the ERSS reports as they are completed. The ERSS reports that describe low-risk species will provide industry, States, and consumers with valuable knowledge for deciding which species are more responsible choices to acquire. These summaries provide relevant information for the industries to share with their clients and consumers. The summaries may also be used by State natural resource and conservation agencies seeking information on the potential risk of a particular species in order to protect their State's resources. Risk screening summaries are posted here for the benefit of industries, States, or other entities. New summaries will be posted as they are completed, so please keep checking for new species. Also, if new information changes the results of any ERSS, we will revise the ERSS and post the new version with the date.

Some species that we assess may already be in trade in the United States but are considered low risk because they have not become invasive over a long period. Others may be in trade and we do not have enough information to know whether they have become invasive (these would likely be uncertain risk). In addition, due to the large number of species in trade, some species may be in trade in this country that we do not know are in trade. Thus, we are seeking information from the public as to what species are in trade or are otherwise present in the United States.

Ecological Risk Screening Summaries

FISH:

High Risk (species not in trade in U.S.)*

- [Bleak \(*Alburnus alburnus*\)](#)
- [Carp, Crucian \(*Carassius carassius*\)](#)
- [Carp, Prussian \(*Carassius gibelio*\)](#)
- [Catfish, Wels \(*Silurus glanis*\)](#)
- [Minnow, Eurasian \(*Phoxinus phoxinus*\)](#)
- [Moroko, Stone \(or topmouth gudgeon\) \(*Pseudorasbora parva*\)](#)
- [Perch, European \(*Perca fluviatilis*\)](#)
- [Perch, Nile \(*Lates niloticus*\)](#)
- [Roach \(*Rutilus rutilus*\)](#)
- [Silverside, Argentinian \(*Odontesthes bonariensis*\)](#)
- [Sleepers, Amur \(*Perccottus glenii*\)](#)
- [Tucunaré Amarela \(*Cichla kelberi*\)](#)
- [Zander \(*Sander lucioperca*\)](#)

Low Risk (species may be in trade in U.S.)

- [Fighting fish, Siamese \(*Betta splendens*\)](#)

Uncertain Risk (species not in trade in U.S.)

- [Hoplo. Brown \(*Hoplosternum littorale*\)](#)
- [Racer Goby \(*Babka gymnotrachelus*\)](#)

CRAYFISH:
High Risk*

- [Yabby \(*Cherax destructor*\)](#)

MOLLUSKS:
High Risk

- [Golden Mussel \(*Limnoperna fortunei*\)](#)

*Some species temporarily removed to address comments sent to prevent_invasives@fws.gov

Last updated: August 3, 2015

Conserving America's Fisheries

The Fisheries Program applies scientific data to focus conservation activities on high-priority species and habitats. We are committed to protecting and maintaining stable populations and healthy habitats and restoring degraded habitats and depleted populations. The healthy habitat is vital to well managed aquatic resources, continuing ecological, recreational, commercial, and subsistence contributions to our nation's prosperity.



What We Do

- [Aquatic Animal Drug Approval Partnership](#)
- [Aquatic Invasive Species](#)
- [Fish Passage](#)
- [Injurious Wildlife](#)
- [National Fish Habitat Partnership](#)
- [National Fish Hatchery System](#)
- [Sikes Act](#)

Facilities

- [Fish Health Centers](#)
- [Fish Technology Centers](#)
- [Fish and Wildlife Conservation Offices](#)
- [National Fish Hatcheries](#)

Partnerships

- [Aquatic Nuisance Species Task Force](#)
- [National Friends Group](#)
- [Recreational Boating & Fishing Foundation](#)
- [Sport Fishing & Boating Partnership Council](#)

About Us

- [Program History](#)
- [Strategic Vision](#)
- [Budget](#)
- [Eddies](#)
- [Contact Us](#)

Laws, Policies & Regulations

- [Federal Register Notices](#)
- [Fish and Aquatic Conservation Program Regulations and Policies](#)

Library

- [Scientific Publications](#)
- [Economic Report](#)
- [Full Economic Report](#)
- [Fish Health Section Blue Book 2012 Edition](#)
- [Videos](#)